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MYOCARDIAL ISCHEMIA AND INFARCTION

TIME DISTRIBUTION OF RE-INFARCTION AFTER THROMBOLYSIS: RELEVANCE FOR OPTIMAL TREATMENT STRATEGY IN ACUTE MYOCARDIAL INFARCTION

ACC Poster Contributions
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Background: Primary percutaneous coronary intervention (pPCI) is superior to thrombolysis in acute myocardial infarction (AMI). Superiority of PCI is mostly driven by a significant reduction of early reinfarction. However, due to limited access to timely pPCI, thrombolysis still remains a widely used approach. The purpose of this study was to identify the temporal distribution of reinfarction in patients undergoing pharmacological revascularization in order to identify the optimal treatment strategy in ST-elevation myocardial infarction (STEMI).

Methods: We retrospectively analyzed 387 case histories of STEMI patients treated with fibrinolysis (297 males; mean age 64±1 years). Diagnosis of reinfarction was based on current guidelines.

Results: Mean interval between symptom onset and fibrinolysis was 3.3±0.1 hours. Reinfarction was diagnosed in 91 patients (23.5%). Median time interval between completion of thrombolysis and re-infarction was 3.5 hours (range: 20 minutes to 5 days), 70.3% of reinfarctions occurring within 6 hours after thrombolysis (Figure 1: Reinfarction Curve).

Conclusions: Most non-fatal reinfarctions occur very early after pharmacological recanalization. This time distribution, with 70% of events concentrated in the 6 hours following completion of thrombolysis, should be taken into consideration in design strategy to combine benefit of PCI and thrombolysis.